

CLAIMS:

1. A tile for seamless paving structures, said tile comprising:

a plurality of irregularly shaped stone elements extending at least partially above a backing layer or base, said tile when in aligned abutting relationship with an adjacent tile, forming together with said adjacent tile an irregularly shaped cavity extending between adjacent stone elements whereby, in use, a grouted joint between adjacent tiles extends irregularly on each side of a joint between said backing layer or base to form an optically seamless joint.

2. A tile as claimed in claim 1 wherein respective edges of said stone elements may extend up to edges of said backing layer or base.

3. A tile as claimed in claim 1 wherein respective edges of said backing layer or base may extend beyond edges of adjacent stone elements bonded thereto.

4. A tile as claimed in claim 1 wherein said backing layer or base may be of any suitable shape including rectangular, regular polygon or an irregular shape nestable with adjacent tiles of the same or differing shapes.

5. A tile as claimed in claim 1 comprising a rectangular backing layer or base having one or more spigot-like projections extending from opposite or adjacent edges and corresponding socket-like recesses or respective opposite or adjacent edges.

6. A tile as claimed in claim 1 wherein said backing layer or base comprises a rigid material to which said stone elements are secured.

7. A tile as claimed in claim 1 wherein said backing layer or base

comprises a flexible material to which said stone elements are secured.

8. A tile as claimed in claim 1 wherein said backing layer or base comprises a cementitious composition with or without a polymeric bonding agent.

5 9. A tile as claimed in claim 1 wherein said backing layer or base comprises a polymeric composition.

10. A tile as claimed in claim 1 wherein said backing layer or base comprises reinforcing material.

10 11. A tile as claimed in claim 1 wherein said backing layer or base comprises an apertured sheet like material.

12. A tile as claimed in claim 1 wherein said backing layer or base comprises a plastics mesh.

15 13. A tile as claimed in claim 10 wherein the reinforcing material is selected from chopped fibres with or without enlarged ends, matting on a metal or plastics mesh.

14. A tile as claimed in claim 1 wherein said tile is formed whereby normally exposed surfaces of stone elements comprising said tile lie in a substantially common plane.

20 15. A tile as claimed in claim 1 wherein said tile is formed with a substantially constant thickness whereby normally exposed surfaces of stone elements of adjacent tile lie in a substantially common plane.

16. A method for manufacture of tiles for seamless paving structures said method comprising the steps of:

supporting on a substantially planar support surface, a plurality

of irregularly shaped stone elements with a normally exposed surface of said stone elements being in contact with said support surface; and,

5 securing to respective opposite surfaces of said stone elements a backing layer or base having a mounting surface substantially parallel to said support surface, said method characterized in that said irregularly shaped stone elements of each said tile are positioned relative to each other whereby non-linear tile boundaries are formed such that, in use, a grouted joint between adjacent tiles extends irregularly on each side of a joint between respective backing layers or bases to form an optically seamless joint.

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17. A method as claim in claim 16 wherein said mounting surface is positioned at a predetermined distance from said support surface to form a tile of predetermined thickness.

15 18. A method as claimed in claim 16 wherein said stone elements are secured to a substrate of predetermined shape and/or thickness.

19. A method as claimed in claim 18 wherein said stone elements are secured to said substrate by an adhesive.

20 20. A method as claimed in claim 16 wherein said backing layer or base is formed by a flowable castable material adhesively securable to said stone elements.

21. A method as claimed in claim 20 wherein said backing layer or base is formed in a mould having an upright boundary wall.

22. A method as claimed in claim 16 wherein said tile is formed by placing a plurality of irregularly shaped stone elements onto a surface of a

flowable castable material supported on a substantially planar support surface within a predetermined boundary shape and compressing said stone elements into said castable material by a substantially planar compression member lying in a plane substantially parallel to said support surface.

5 23. A method as claimed in claim 16 wherein said irregularly stone elements are on a substantially planar support surface within a predetermined boundary shape and thereafter a layer of a flowable castable material is applied over said stone elements to form a backing layer or base of predetermined thickness having a mounting surface substantially parallel
10 to said support surface.

24. A method as claimed in claim 23 wherein said stone elements are located on a support surface within an upright boundary wall.

25. A method as claimed in claim 23 wherein a flowable displacement material is introduced into interstices between adjacent stone
15 elements before formation of a backing layer or base thereover to form grout channels therebetween.

26. A method for installing tiles for seamless paving structures, said method including the steps of:

adhering said tiles to a planar surface in aligned abutment; and,
20 introducing a grouting composition into cavities between adjacent stone elements whereby said grouting composition in the region of a joint between adjacent tiles extends irregularly over each side of said joint to form a substantially optically seamless joint.

27. A method of installing tiles according to claim 26 wherein said

tiles are laid on said surface with abutting base edges.

28. A method as claimed in claim 26 wherein said base edges are spaced and stone elements of differing sizes are inserted into the surface of grout therebetween to form an optically seamless joint.